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# THE UNITED STATES OF AMERICA

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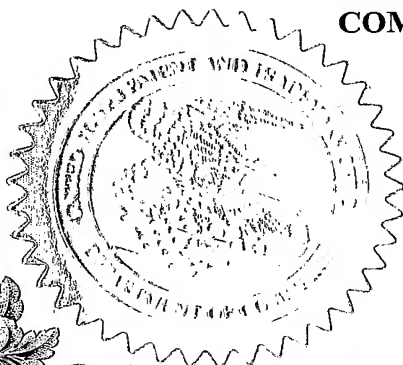
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**APPLICATION NUMBER: 60/539,347**

**FILING DATE: *January 28, 2004***

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**TRUDIE WALLACE**  
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Docket Number: 1416/13

**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

INVENTOR(S)/APPLICANT(S)						
Given Name (first and middle [if any])		Family Name or Surname		Residence (City and either State or Foreign Country)		
GILAD		RAFAELI		GIVATHAIM ICHUD, ISRAEL		
<input type="checkbox"/> Additional inventors are being named on page 2 attached hereto						
TITLE OF THE INVENTION (280 characters max)						
NAIL GUIDE						
CORRESPONDENCE ADDRESS						
Direct all correspondence to:			<div style="border: 1px solid black; padding: 5px; text-align: center;">             Place Customer Number Bar Code Label here           </div>			
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ENCLOSED APPLICATION PARTS (check all that apply)						
<input checked="" type="checkbox"/>	Specification	Number of Pages	4	Applicant is Small Entity		
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The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.						
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Respectfully submitted,

SIGNATURE

DATE 25 JAN 04

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SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, DC 20231

## **NAIL GUIDE**

### **FIELD OF THE INVENTION**

The present invention relates to a handheld nail guide that guides a nail as it is being driven into a substrate.

### **BACKGROUND OF THE INVENTION**

Hammering a nail into wood, plaster, or plastic, herein a substrate, requires that the nail be positioned properly both with respect to the substrate and with respect to the hammer, herein a driver. Nail guides that position a nail with respect to a substrate are known.

Juneau in US Patent 5,529,234 shows a piston in a sleeve, an end of the piston being magnetized to hold a nail so that when the piston is hit by a driver, the piston travels through the sleeve to drive the nail into the substrate. When the diameter of the sleeve is larger than the diameter of the nail, the nail deflects, resulting in an inappropriate alignment with the substrate.

### **SUMMARY OF THE INVENTION**

In an aspect of an embodiment of the present invention, a nail guide includes a handle having a linear passage therethrough, the linear passage having a first end at least partially covered by a flexible membrane and a piston slideably engaged in the linear passage. In an exemplary embodiment, the piston has two ends, a first end of the piston being operatively associated with the passage first end, the first end including a concave surface suitable for centering a fastener and a second end suitable for being driven by a driver.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

Exemplary non-limiting embodiments of the invention are described in the following description, read with reference to the figures attached hereto. In the figures, identical and similar structures, elements or parts thereof that appear in more than one figure are generally labeled with

the same or similar references in the figures in which they appear. Dimensions of components and features shown in the figures are chosen primarily for convenience and clarity of presentation and are not necessarily to scale. The attached figures are:

The Figure is schematic view of a nail driver, in accordance with an embodiment of the present invention.

### DESCRIPTION OF EXEMPLARY EMBODIMENTS

The Figure is schematic view of a nail driver 100 in accordance with an embodiment of the present invention. In an exemplary embodiment, a piston 110 is moveably associated with a sleeve 120, piston 110 having a concave surface 112 suitable for receiving and centering a head 132 of a nail 130. Concave surface 112 is curved to receive and center a variety of diameters of nail heads 132.

In an exemplary embodiment, driver 100 includes a membrane 140 that has an opening 142 in its center. Opening 142 serves to maintain shaft 134 of nail 130 aligned with piston 110. Membrane 140 optionally includes a rubber that stretches to allow opening 142 to expand to allow head 132 to pass and engage concave surface 112.

A driver (not shown), for example a hammer, is impacted against an end 102 of piston 110 to drive nail 130 into substrate 150, including for example wood, plaster or plastic.

The present invention has been described using non-limiting detailed descriptions of embodiments thereof that are provided by way of example and are not intended to limit the scope of the invention. It should be understood that features and/or steps described with respect to one embodiment may be used with other embodiments and that not all embodiments of the invention have all of the features and/or steps shown in a particular figure or described with respect to one of the embodiments. Variations of embodiments described will occur to persons of the art.

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Furthermore, the terms "include", "comprise," "have" and their conjugates, shall mean, when used in the disclosure and/or claims, "comprising but not necessarily limited to."

It is noted that some of the above described embodiments may describe the best mode contemplated by the inventors and therefore may comprise structure, acts or details of structures and acts that may not be essential to the invention and which are described as examples. Structure and acts described herein are replaceable by equivalents, which perform the same function, even if the structure or acts are different, as known in the art.

Therefore, the scope of the invention is limited only by the elements and limitations as used in the claims.

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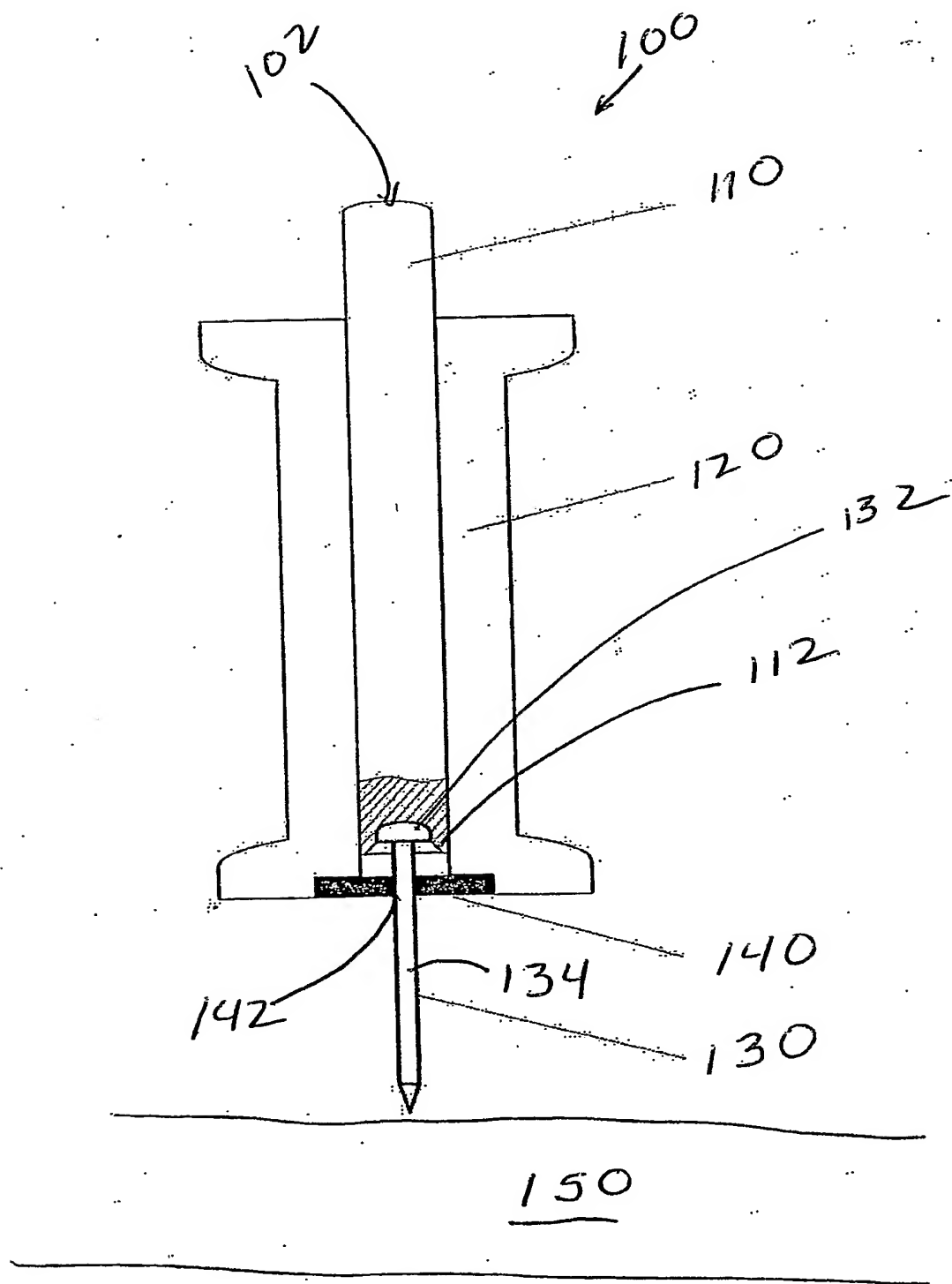
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## CLAIMS

### We claim:

1. A device for driving a nail into a substrate essentially as described hereinabove.



Figure